



PATENT  
Attorney Docket No. NEX-007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Klein et al.  
SERIAL NO.: 10/618,091 GROUP NO.: 3652  
FILING DATE: July 11, 2003 EXAMINER: Not yet assigned  
TITLE: Ultra-Thin Wafer Handling System

Mail Stop Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. In accordance with the U.S. Patent Office's partial waiver of the requirement under 37 C.F.R. 1.98(a)(2)(i), only copies of the foreign patent documents and non-patent publications are enclosed.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or

- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**
- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

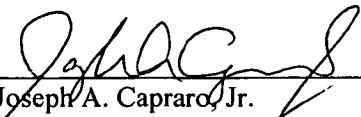
It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

### STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:

- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

  
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Date: February 11, 2004  
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<b>FORM PTO - 1449</b>  <b>INFORMATION DISCLOSURE STATEMENT</b>	<b>ATTORNEY DOCKET NO.: NEX-007</b>  <b>APPLICANT(S): Klein et al.</b>  <b>SERIAL NO.: 10/618,091</b>  <b>FILING DATE: July 11, 2003    GROUP: 3652</b>
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<b>U.S. PATENT DOCUMENTS</b>
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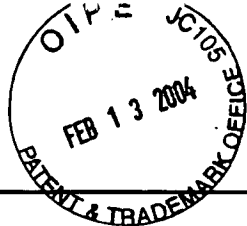
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	A1	2,744,859	Rines			
	A2	3,317,410	Croll et al.			
	A3	3,438,668	Olsson et al.			
	A4	3,523,706	Logue			
	A5	3,539,216	Forcier			
	A6	3,652,442	Powers et al.			
	A7	3,809,642	Bond et al.			
	A8	3,902,615	Levy et al.			
	A9	3,972,424	Levy et al.			
	A10	4,002,254	Olofsen			
	A11	4,008,815	Fisk			
	A12	4,118,058	Rahn et al.			
	A13	4,304,641	Grandia et al.			
	A14	4,391,694	Runsten			
	A15	4,405,435	Tateishi et al.			
	A16	4,437,961	Routh et al.			
	A17	4,526,670	Hajj			
	A18	4,586,743	Edwards et al.			
	A19	4,588,343	Garrett			
	A20	4,668,365	Foster et al.			
	A21	4,715,921	Maher et al.			
	A22	4,747,928	Takahashi et al.			
	A23	4,749,465	Flint et al.			
	A24	4,785,962	Toshima			
	A25	4,819,167	Cheng et al.			

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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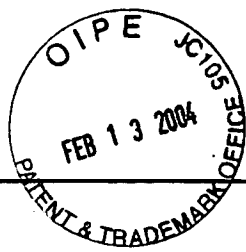
<b>FORM PTO - 1449</b>				<b>ATTORNEY DOCKET NO.: NEX-007</b>			
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EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A26	4,820,396	04/11/89	de Masi			
	A27	4,842,683	06/27/89	Cheng et al.			
	A28	4,872,947	10/10/89	Wang et al.			
	A29	4,892,753	01/09/90	Wang et al.			
	A30	4,911,597	03/27/90	Maydan et al.			
	A31	4,951,601	08/28/90	Maydan et al.			
	A32	4,962,441	10/09/90	Collins			
	A33	5,000,113	03/19/91	Wang et al.			
	A34	5,000,827	03/19/91	Schuster et al.			
	A35	5,013,385	05/07/91	Maher et al.			
	A36	5,046,909	09/10/91	Murdoch			
	A37	5,080,549	01/14/92	Goodwin et al.			
	A38	5,102,495	04/07/92	Maher et al.			
	A39	5,110,249	5/5/92	Norman			
	A40	5,117,121	05/26/92	Watanabe et al.			
	A41	5,143,593	09/01/92	Ueno et al.			
	A42	5,198,089	03/30/93	Brueggman			
	A43	5,199,483	04/06/93	Bahng			
	A44	5,200,049	04/06/93	Stevenson et al.			
	A45	5,215,619	06/01/93	Cheng et al.			
	A46	5,224,809	07/06/93	Maydan et al.			
	A47	5,227,708	07/13/93	Lowrance			
	A48	5,242,043	09/07/93	Sturm			
	A49	5,269,643	12/14/93	Kodama et al.			
	A50	5,280,983	01/25/94	Maydan et al.			

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<b>EXAM. INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE IF APPROPRIATE</b>
	A51	5,292,393	03/08/94	Maydan et al.			
	A52	5,308,431	05/03/94	Maher et al.			
	A53	5,315,473	05/24/94	Collins et al.			
	A54	5,324,155	06/28/94	Goodwin et al.			
	A55	5,330,301	7/19/94	Brancher			
	A56	5,344,542	09/06/94	Maher et al.			
	A57	5,345,999	09/13/94	Hosokawa			
	A58	5,354,715	10/11/94	Wang et al.			
	A59	5,355,066	10/11/94	Lowrance			
	A60	5,360,996	11/01/94	Nulman et al.			
	A61	5,362,526	11/08/94	Wang et al.			
	A62	5,363,872	11/15/94	Lorimer			
	A63	5,370,709	12/06/94	Kobayashi			
	A64	5,371,042	12/06/94	Ong			
	A65	5,377,816	1/3/95	Deligi et al.			
	A66	5,387,067	02/07/95	Grunes			
	A67	5,391,035	02/21/95	Krueger			
	A68	5,399,387	03/21/95	Law et al.			
	A69	5,421,987	06/06/95	Tzanavaras et al.			
	A70	5,425,611	6/20/95	Hughes et al.			
	A71	5,427,666	06/27/95	Mueller et al.			
	A72	5,443,995	08/22/95	Nulman			
	A73	5,444,597	08/22/95	Blake et al.			
	A74	5,447,409	09/05/95	Grunes et al.			
	A75	5,460,689	10/24/95	Raaijmakers et al.			

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EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A76	5,469,035	11/21/95	Lowrance			
	A77	5,492,566	02/20/96	Sumnitsch			
	A78	5,512,320	04/30/96	Turner et al.			
	A79	5,513,668	05/07/96	Sumnitsch			
	A80	5,514,258	05/07/96	Brinket et al.			
	A81	5,516,412	05/14/96	Andricacos et al.			
	A82	5,521,120	05/28/96	Nulman et al.			
	A83	5,527,605	06/18/96	Doessel et al.			
	A84	5,534,231	07/09/96	Savas			
	A85	5,538,390	07/23/96	Salzman			
	A86	5,556,147	09/17/96	Somekh et al.			
	A87	5,556,248	09/17/96	Grunes			
	A88	5,563,798	10/08/96	Berken et al.			
	A89	5,566,744	10/22/96	Tepman			
	A90	5,570,994	11/05/96	Somekh et al.			
	A91	5,579,718	12/03/96	Freerks			
	A92	5,597,460	01/28/97	Reynolds			
	A93	5,607,009	03/04/97	Turner et al.			
	A94	5,607,776	03/04/97	Mueller et al.			
	A95	5,618,338	04/08/97	Kurabayashi et al.			
	A96	5,618,388	04/08/97	Seeser et al.			
	A97	5,630,690	05/20/97	Salzman			
	A98	5,630,916	05/20/97	Gerrish et al.			
	A99	5,630,917	05/20/97	Guo			
	A100	5,636,964	06/10/97	Somekh et al.			

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	A101	5,643,366	07/01/97	Somekh et al.			
	A102	5,643,427	07/01/97	Kobayashi et al.			
	A103	5,656,139	08/12/97	Carey et al.			
	A104	5,656,902	08/12/97	Lowrance			
	A105	5,658,442	08/19/97	Van Gogh et al.			
	A106	5,661,913	09/02/97	Kato et al.			
	A107	5,674,786	10/07/97	Turner et al.			
	A108	5,678,980	10/21/97	Grunes et al.			
	A109	5,683,564	11/04/97	Reynolds			
	A110	5,697,427	12/16/97	Ngan et al.			
	A111	5,697,748	12/16/97	Somekh et al.			
	A112	5,697,750	12/16/97	Fishkin et al.			
	A113	5,730,801	03/24/98	Tepman et al.			
	A114	5,740,062	04/14/98	Berken et al.			
	A115	5,746,460	05/05/98	Marohl et al.			
	A116	5,746,897	05/05/98	Heimanson et al.			
	A117	5,747,360	05/05/98	Nulman			
	A118	5,764,012	06/09/98	Lowrance			
	A119	5,780,357	07/14/98	Xu et al.			
	A120	5,784,238	07/21/98	Nering et al.			
	A121	5,788,453	08/04/98	Donde et al.			
	A122	5,788,799	08/04/98	Steger et al.			
	A123	5,789,878	08/04/98	Kroeker et al.			
	A124	5,795,355	08/18/98	Moran			
	A125	5,799,860	09/01/98	Demaray et al.			

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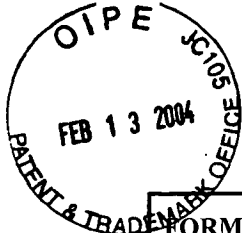
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U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	A126	5,803,977	09/08/98	Tepman et al.			
	A127	5,810,937	09/22/98	Gupta et al.			
	A128	5,822,171	10/13/98	Shamouilian et al.			
	A129	5,824,197	10/20/98	Tanaka			
	A130	5,833,426	11/10/98	Marohl			
	A131	5,836,736	11/17/98	Thompson et al.			
	A132	5,838,121	11/17/98	Fairbairn et al.			
	A133	5,843,296	12/01/98	Greenspan			
	A134	5,844,195	12/01/98	Fairbairn et al.			
	A135	5,846,883	12/08/98	Moslehi			
	A136	5,851,602	12/22/98	Law et al.			
	A137	5,855,681	01/05/99	Maydan et al.			
	A138	5,861,086	01/19/99	Khurana et al.			
	A139	5,861,197	01/19/99	Law et al.			
	A140	5,865,894	02/02/99	Reynolds			
	A141	5,871,588	02/16/99	Moslehi et al.			
	A142	5,871,811	02/16/99	Wang et al.			
	A143	5,877,086	03/02/99	Aruga			
	A144	5,879,127	03/09/99	Grunes et al.			
	A145	5,882,165	03/16/99	Maydan et al.			
	A146	5,882,168	03/16/99	Thompson et al.			
	A147	5,893,966	04/13/99	Akram et al.			
	A148	5,896,877	04/27/99	Pirker			
	A149	5,905,302	05/18/99	Lane et al.			
	A150	5,932,077	08/03/99	Reynolds			

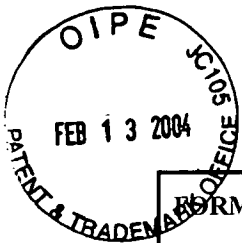
EXAMINER	DATE CONSIDERED
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<b>EXAM. INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>NAME</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE IF APPROPRIATE</b>
	A151	5,935,330	08/10/99	Taniguchi			
	A152	5,967,578	10/19/99	Frey			
	A153	5,996,241	12/07/99	Thompson et al.			
	A154	6,017,437	01/25/00	Ting et al.			
	A155	6,022,417	02/08/00	Sumnitsch			
	A156	6,022,465	02/08/00	Ting et al.			
	A157	6,024,526	02/15/00	Slocum et al.			
	A158	6,027,631	02/22/00	Broadbent			
	A159	6,033,540	03/07/00	Kosaki et al.			
	A160	6,048,154	04/11/00	Wytman			
	A161	6,074,544	06/13/00	Reid et al.			
	A162	6,082,950	07/04/00	Altwood et al.			
	A163	6,099,702	08/08/00	Reid et al.			
	A164	6,099,712	08/08/00	Ritzdorf et al.			
	A165	6,103,085	08/15/00	Woo et al.			
	A166	6,103,628	08/15/00	Talich			
	A167	6,139,695	10/31/00	Washburn et al.			
	A168	6,139,703	10/31/00	Hanson et al.			
	A169	6,139,712	10/31/00	Patton et al.			
	A170	6,152,507	11/28/00	Pirker			
	A171	6,156,167	12/05/00	Patton et al.			
	A172	6,159,354	12/12/00	Contolini et al.			
	A173	6,162,344	12/19/00	Reid et al.			
	A174	6,167,893 B1	01/02/01	Taatjes et al.			
	A175	6,174,011 B1	01/16/01	Keigler			

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	A176	6,179,983 B1	01/30/01	Reid et al.			
	A177	6,193,859 B1	02/27/01	Contolini et al.			
	A178	6,197,181 B1	03/06/01	Chen			
	A179	6,198,616 B1	03/06/01	Dahimene et al.			
	A180	6,214,193 B1	04/10/01	Reid et al.			
	A181	6,215,321 B1	04/10/01	Nakata			
	A182	6,217,272	04/17/01	Felsenthal et al.			
	A183	6,224,670 B1	05/01/01	Ishida			
	A184	6,228,232 B1	05/08/01	Woodruff et al.			
	A185	6,228,233 B1	05/08/01	Lakshmikanthan et al.			
	A186	6,234,788	05/22/01	Lee			
	A187	6,236,555 B1	05/22/01	Leeser			
	A188	6,243,251 B1	06/05/01	Kanno et al.			
	A189	6,254,328 B1	07/03/01	Wytman			
	A190	6,254,742 B1	07/03/01	Hanson et al.			
	A191	6,254,760 B1	07/03/01	Shen et al.			
	A192	6,258,220 B1	07/10/01	Dordi et al.			
	A193	6,258,223 B1	07/10/01	Cheung et al.			
	A194	6,260,894 B1	07/17/01	Minnick et al.			
	A195	6,307,728 B1	10/23/01	Leeser			
	A196	6,328,858	12/11/01	Felsenthal et al.			
	A197	6,396,024	05/28/02	Doughty et al.			
	A198	6,430,468 B1	08/06/02	Tepman et al.			
	A199	6,530,733	03/11/03	Klein et al.			
	A200	6,550,158 B2	04/22/03	Doley et al.			

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	<b>A201</b>	6,682,288	01/27/04	Klein et al.					
	<b>A202</b>	2002/0140148 A1	10/03/02	Aigner et al.					
<b>FOREIGN PATENT DOCUMENTS</b>									
<b>EXAM. INIT.</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY CODE</b>	<b>CLASS</b>	<b>SUB CLASS</b>	<b>FILING DATE</b>	<b>ABSTRACT ONLY</b>	<b>ENGLISH LANG Y/N</b>
	<b>B1</b>	0 492 114 A1	07/01/92	EP				N	N (English Language Abstract)
	<b>B2</b>	2 171 119 A	08/20/86	GB				N	Y
	<b>B3</b>	63024632	02/02/88	JP				Y	Y
	<b>B4</b>	64004472	01/09/89	JP				Y	Y
	<b>B5</b>	01123068	05/16/89	JP				Y	Y
	<b>B6</b>	01309961	12/14/89	JP				Y	Y
	<b>B7</b>	03094070	04/18/91	JP				Y	Y
	<b>B8</b>	03227536	08/10/91	JP				N	N (English Language Abstract)
	<b>B9</b>	05171432	07/09/93	JP				Y	Y
	<b>B10</b>	05339723	12/21/93	JP				Y	Y
	<b>B11</b>	06063885	03/08/94	JP				N	N (English Language Abstract)
	<b>B12</b>	06184741	07/05/94	JP				Y	Y
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>				



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<b>OTHER ART, JOURNAL ARTICLES, ETC.</b>		
<b>EXAM. INIT.</b>	<b>OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)</b>	
	<b>C1</b>	"Automatic System for Single Wafer Reactive Ion Etching," IBM Technical Disclosure Bulletin, Vol. 33, No. 2, July 1990, pp. 239-242. (3 pages)
	<b>C2</b>	Gaulhofer et al., "Wafer Thinning and Strength Enhancement to Meet Emergency Packaging Requirements," IEMT Europe 2000 Symposium (IEEE/CPMT), April 6-7, 2000, Munich, Germany, Semicon Europe, pp. 21-27.
	<b>C3</b>	Haller et al., "High Frequency Performance of GE High Density Interconnect Modules," IEEE Transactions on Components, Hybrids, and Manufacturing Technology, Vol. 16, No. 1, February 15, 1993, pp. 1-5.
	<b>C4</b>	Hendrix et al., "Improvements in Yield by Eliminating Background Defects and Providing Stress Relief with Wet Chemical Etching," <a href="http://www.hologenix.com/Article1.htm">http://www.hologenix.com/Article1.htm</a> , printed June 30, 2003, 6 pages.
	<b>C5</b>	Young et al., "Thermal Modeling and Mechanical Analysis of Very Thin Silicon Chips for Conformal Electronic Systems," University of Arkansas, Fayetteville, AZ, 8 pages.

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<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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